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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,300	11/17/2003	Steven R. Pauley	067083.0215	5226

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EXAMINER	
BOMAR, THOMAS S	
ART UNIT	**PAPER NUMBER**
3672	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/715,300	PAULEY, STEVEN R.	
	Examiner	Art Unit	
	Shane Bomar	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6 total*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 6, 9, and 16 are objected to because of the following informalities: in claim 6, the second recitation of "a second cavity" should be --the second cavity--; in claim 9, the recitations of "a second articulated wellbore" and "a second wellbore" should be --the second articulated wellbore-- and --the second wellbore--, respectively; in claim 16, the recitation of "the coal seam" lacks proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 and 10-22 are rejected under 35 U.S.C. 102(a) as being anticipated by US patent application publication 2003/0075322 to Zupanick et al.

Regarding claims 1 and 12, Zupanick et al disclose a well system comprising; a first well 22 bore extending from a surface to a subterranean zone; a second well bore 22 extending from the surface to the subterranean zone; a first articulated well bore 38(68) formed off of the first well bore, the first articulated well bore intersecting the second well bore through lateral 72 and

coupled to a first pattern formed in the subterranean zone through the first articulated well bore; a second articulated well bore 38(70) formed off of the second well bore, the second articulated well bore intersecting the first well bore again through lateral 72 and coupled to a second pattern formed in the subterranean zone through the second articulated well bore; the first pattern operable to transport fluids from the subterranean zone to the second well for production to the surface; and the second pattern operable to transport fluids from the subterranean zone to the first well for production to the surface (see Figs. 1, 2, 4B, 5A, and 5B, as well as the associated descriptions).

Regarding claims 2-5, 11, and 13-15, the first and second patterns display all of the currently claimed limitations (see Fig. 5A).

Regarding claims 6 and 16, two cavities 18 are coupled to the first and second wellbores through the articulated wellbores (see Figs. 2 and 5B).

Regarding claims 7, 8, and 17, the zone is a coal seam and the fluids comprise water and CBM gas (see paragraph [0004]).

Regarding claim 10, the area of coverage is at least 600 acres (see paragraph [0052]).

Regarding claims 18, 20, and 21, Zupanick et al also disclose a method for forming a well system similar to that disclosed above, the method comprising: forming a first well bore 22 having a cavity 18 proximate to a subterranean zone; forming a second well bore 22 having a cavity 18 proximate to the subterranean zone; kicking off the first well bore above the subterranean zone to form a first pattern in the subterranean zone, the first pattern intersecting the cavity of the second well bore and operable to transport fluids from the subterranean zone to the cavity of the second well bore for production to the surface through the second well bore; and

kicking off the second well bore above the subterranean formation to form a second pattern in the subterranean formation, the second pattern intersecting the cavity of the first well bore and operable to transport fluids from the subterranean zone to the first well bore for production to the surface through the first well bore (see Figs. 1, 2, 4B, 5A, and 5B, as well as the associated descriptions).

Regarding claims 19 and 22, under-balanced drilling and gas-lift production are two notoriously known methods in the industry that can inherently be applied to any wellbore system or method, and therefore do not represent patentable distinct subject matter.

4. Claims 12, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 4,754,808 to Harmon et al.

Regarding claim 12, Harmon et al disclose a well system, comprising: at least two well bores A and B (which are production wellbores) extending from a surface to a subterranean zone; each of the two well bores being used to form a substantially horizontal well bore pattern 32 for the subterranean zone that intersects the other well bore and transports fluid from the subterranean zone to the other well bore for production to the surface; and each of the two well bores operable to collect for production to the surface fluids transported to the well bore by the substantially horizontal well bore pattern formed through the other well bore (see Figs. 4-7 and the associated descriptions of each).

Regarding claims 16 and 17, the zone is inherently a coal seam and cavities 30 and 35 aid in collecting fluids transported by the pattern (see Fig. 4 and col. 1, lines 26-33).

5. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by US patent application publication 2005/0087340 to Zupanick et al

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 12, Zupanick et al disclose a well system comprising; a first well 300 bore extending from a surface to a subterranean zone; a second well bore 308 extending from the surface to the subterranean zone; a first articulated well bore 314 formed off of the first well bore, the first articulated well bore intersecting the second well bore and coupled to a first pattern formed in the subterranean zone through the first articulated well bore; a second articulated well bore 314 formed off of the second well bore, the second articulated well bore intersecting the first well bore and coupled to a second pattern formed in the subterranean zone through the second articulated well bore; the first pattern operable to transport fluids from the subterranean zone to the second well for production to the surface; and the second pattern operable to transport fluids from the subterranean zone to the first well for production to the surface (see Figs. 7-9 and 11, as well as paragraphs [0085]-[0088]). The first and second patterns are operable to transport fluids from the subterranean zone to the first or second well because "operable" is an open-ended term that means the pattern only need be capable of performing the intended function. In the instant case, the patterns are capable of such transportation because the zone of interest could be down-dipping or up-dipping, as is

notoriously known in the art (the completely horizontal zones depicted in the Figures of the instant application are not typical).

Regarding claims 2-5, 11, and 13-15, the first and second patterns display all of the currently claimed limitations (see Figs. 7-9).

Regarding claims 6 and 16, cavities 22 are coupled to the first and second wellbores through the articulated wellbores (see Fig. 11).

Regarding claims 7, 8, and 17, the zone 15 is a coal seam and the fluids inherently comprise water and CBM gas (see paragraph [0056]).

Regarding claim 9, the first articulated well bore including a packer 62 disposed between the first well bore and intersection of the second well bore; a second articulated well bore including a packer 62 disposed between a second well bore and intersection of the first well bore (see Fig. 11).

Regarding claim 10, the area of coverage is inherently at least 600 acres (see paragraphs [0006]-[0008]).

Regarding claims 18, 20, and 21, Zupanick et al also disclose a method for forming a well system similar to that disclosed above, the method comprising: forming a first well bore 300 having a cavity 22 proximate to a subterranean zone; forming a second well bore 308 having a cavity 22 proximate to the subterranean zone; kicking off the first well bore above the subterranean zone to form a first pattern in the subterranean zone, the first pattern intersecting the cavity of the second well bore and operable to transport fluids from the subterranean zone to the cavity of the second well bore for production to the surface through the second well bore; and kicking off the second well bore above the subterranean formation to form a second pattern in

the subterranean formation, the second pattern intersecting the cavity of the first well bore and operable to transport fluids from the subterranean zone to the first well bore for production to the surface through the first well bore (see Figs. 7-9 and 11, as well as paragraphs [0085]-[0088]). The first and second patterns are operable to transport fluids from the subterranean zone to the first or second well because "operable" is an open-ended term that means the pattern only need be capable of performing the intended function. In the instant case, the patterns are capable of such transportation because the zone of interest could be down-dipping or up-dipping, as is notoriously known in the art (the completely horizontal zones depicted in the Figures of the instant application are not typical).

Regarding claims 19 and 22, under-balanced drilling and gas-lift production are two notoriously known methods in the industry that can inherently be applied to any wellbore system or method, and therefore do not represent patentable distinct subject matter.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Curtis et al, Schmidt et al, and Zupanick teach other underground patterns of particular interest.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

tsb
September 29, 2005